

# START

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March 19, 1991

Meeting Minutes Transmittal/Approval  
Unit Managers Meeting: 200-BP-1 Operable Unit  
450 Hills Street, Rm 47  
February 21, 1990

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From/ Appvl.: *Julie K. Erickson* (as charged) Date: 3-21-91  
Julie K. Erickson, 200-BP-1 Unit Manager, DOE-RL (A6-95)

Appvl.: *Douglas R. Sherwood* Date: 3-21-91  
Douglas R. Sherwood, 200-BP-1 Unit Manager, EPA (B5-01)

Appvl.: *Larry Goldstein* for LG Date: 3/21/91  
Larry Goldstein, 200-BP-1 Unit Manager, WA Department of Ecology

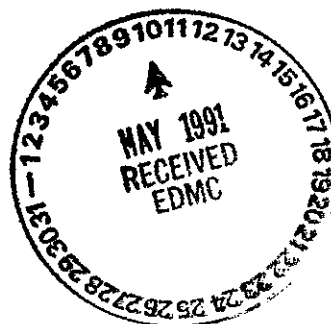
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Meeting Minutes are attached. Minutes are comprised of the following:

- Attachment #1 - Meeting Summary/Summary of Commitments and Agreements
  - Attachment #2 - Agenda for the Meeting
  - Attachment #3 - Attendance List
  - Attachment #4 - Commitments/Agreements Status List
  - Attachment #5 - UN-216-E-17 Unplanned Release Site Remedial Action
  - Attachment #6 - 200-BP-1 Physical Properties For Vadose Sampling Activities
  - Attachment #7 - 200-BP-1 Groundwater Well Installation, Task 6 Status
  - Attachment #8 - Groundwater Well Remediation
  - Attachment #9 - Groundwater Sampling
  - Attachment #10 - Source and Vadose Sampling
  - Attachment #11 - 200-BP-1 PNL Laboratory Readiness Schedule
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Prepared by: *Bill Teyar* Date: 3/21/91  
SWEC Support Services

Concurrence by: *Mark A. Burkhardt* Date: 3/21/91  
WHC RI Coordinator



200-BP-1 Operable Unit Managers Meeting  
February 21, 1990

Distribution:

Donna Lacombe, PRC  
Ward Staubitz, USGS  
Doug Fassett, SWEC (A4-35)  
Linda Powers, WHC (B2-35)  
Tom Wintczak, WHC (B2-15)  
Mel Adams, WHC (H4-55)  
Wayne Johnson, WHC (H4-55)  
Rich Carlson, WHC (H4-55)  
Brian Sprouse, WHC (H4-22)  
Bill Price, WHC (S0-03)  
Ralph O. Patt,  
    OR Water Resources Dept.  
Doug Dunster, Golder Assoc.  
Mike Thompson, DOE (A6-95)  
Diane Clark, DOE (A5-55)  
Mark Buckmaster, WHC (H4-55)

cc. Ronald D. Izatt (A6-95)  
    Director, DOE-RL, ERD  
Ronald E. Gerton (A6-80)  
    Director, DOE-RL, WMD  
Roger D. Freeberg (A6-95)  
    Chief, Rstr. Br., DOE-RL/ERD  
Steven H. Wisness (A6-95)  
    Tri-Party Agreement Proj. Mgr  
Richard D. Wojtasek (B2-15)  
    Prgm. Mgr. WHC  
Mary Harmon, DOE-HQ (EM-442)

ADMINISTRATIVE RECORD: 200-BP-1; Care of Susan Wray, WHC (H4-51C)

Please inform Doug Fassett (SWEC) of deletions or additions to the distribution list.






















200-BP-1 Unit Manager's Meeting  
February 21, 1991

1. Dwayne Speer (WHC) gave a presentation on the proposed radiation area remedial action at the UN-216-E-17 unplanned release site (see Attachment #5). The Tiger Team finding was that the contaminated area was growing. This action would be done under DOE-RL site-management authority, not CERCLA/RCRA. An extensive discussion followed on the interaction/interference of the interim remedial action with the RI/FS work plan activities. Rich Carlson (WHC) and Doug Sherwood (EPA) will work out a sampling plan that will allow for the interim remedial action without frustrating the objectives of the RI/FS activities. Doug Sherwood expressed a desire to verify that the contamination is rad. waste and not mixed waste. Stabilization of rad. waste could then proceed. Doug Sherwood said the EPA would have to approve the removal of surface soil if the soil was not first sampled; the identification of sources of contamination is a concern. Doug Sherwood, Rich Carlson, and Mark Buckmaster will discuss the timing of sampling. WHC assured the EPA that plans for borings into the cribs would not be delayed due to the implementation of the interim action. The interim action could possibly start April 1 and it could possibly be completed in two months. The work will be funded by DOE-RL Environmental Restoration Division.
  2. A discussion of Safety Documentation requirements as they apply to RI/FS sampling and Expedited Response Actions (ERAs) versus other operations activities on-site was pursued.
- ACTION ITEM #2BP.45:** Investigate the apparent inconsistent application of Safety Documentation requirements to work at Hanford. In particular, identify differences in the plans to remove radiologically contaminated soil in the 200-BP OU versus the ERA for the 300 Area process trenches, and the RARA program versus CERCLA. Action: Jim Patterson (2/21/91)
3. The letter on the suitability of available borehole logging capabilities has been passed from Ward Staubit (USGS) to Doug Sherwood (EPA).
  4. The Action Item Status List was updated and presented by Mark Buckmaster (WHC) (see Attachment #5). Discussion on the Action Items is given below.

AI 2BP1.43: Open. Documentation has been supplied to the safety people, and documentation continues to be supplied. They are starting on the Safety Documentation now that the ERA's are on the back burner.

AI 2BP1.44: Closed. See Attachment 6.

5. A progress report was given.

- a. The status of groundwater well installation was given (see Attachment 7). The completion of well 299-E33-40 was changed from the Rattlesnake Ridge Formation Aquifer to the fracture flow zone at the bottom of the Elephant Mountain Basalt Member since the Elephant Mountain Member is the first water bearing zone. A class 3 change order will be submitted to document this.
- b. It is hoped that limited Safety Documentation for well remediation will be sufficient and that well remediation can resume next month (see Attachment #8).
- c. Groundwater sampling is in progress and will incorporate the scheme for Ruthenium discussed last month (see Attachment #9).
- d. Drilling to investigate source areas and vadose zones will start with B-57, and begin in the time frame of late April to June (see Attachment #10). An SAR for ferrocyanide could delay drilling from 6-24 months. An off-site lab is on line for soil sample analyses of samples < 10 mR/Hr; Weston (PA) has the contract and they will use Teledyne (NJ).
- e. Ward Staubit (USGS) stated that the sampling scheme proposed by Steve Trent (WHC) does not meet the data needs. He said one split-tube sample from each stratigraphic unit is not sufficient to determine the hydraulic conductivity to be used for the model; multiple values are required to determine a representative value. Brian Drost (USGS) addressed the need to define the stratigraphy as it relates to distinct zones of similar hydraulic conductivity. This should be done before establishing the stratigraphy for the model. Ward Staubit (USGS) indicated that a continuous core, per the work plan, should be taken from the first hole. This is especially necessary since the borehole geophysics that was to provide a high degree of spatial resolution isn't going to be available. He suggested that there could be some flexibility in the next two holes, possibly following the sampling scheme proposed by Steve Trent (WHC). Ward will put this response in writing to Doug Sherwood (EPA). The first hole will be at least 2 weeks ahead of the other holes to allow for planning following sampling of the first hole.

**ACTION ITEM #2BP.46:** Provide a list of the samples *that have been collected from the groundwater wells* for physical analysis. Also, provide a list of monitoring wells *that have been sampled*. Action: M. Buckmaster (2/21/91)

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Attachment #3

Attendance

200-BP-1 Operable Unit Managers Meeting  
February 21, 1990

<u>Name</u>	<u>Org.</u>	<u>O.U. Role</u>	<u>Phone</u>
Julie Erickson	DOE-RL	Unit Manager	509-376-3603
Paul Pak	DOE-RL	Unit Manager	509-376-4798
Chuck Cline	Ecology	Hydrogeology	206-438-7556
Steve Cross	Ecology	CERCLA Unit	206-459-6670
Larry Goldstein	Ecology	Unit Manager	206-438-7018
Doug Sherwood	EPA	Unit Manager	206-376-9529
Donna Lacombe	PRC	EPA Contractor	206-624-2692
Doug Fassett	SWEC	GSSC, DOE-RL	206-376-5011
Bill Fryer	SWEC	GSSC, DOE-RL	206-376-0412
Brian Drost	USGS	EPA Support	206-593-6510
Ward Staubitz	USGS	EPA Support	206-593-6510
Mark Buckmaster	WHC	RI Coordinator	509-376-1792
Rich Carlson	WHC	Env. Engineer	509-376-9027
William Hayward	WHC		509-373-5505
Dwayne Speer	WHC		509-373-1382

Attachment #4

Action Items

200-BP-1 Operable Unit Managers Meeting  
February 21, 1990

<u>Item Number</u>	<u>Action</u>	<u>Status</u>
2BP1.38	Determine the USGS position on the feasibility of performing geophysical logging through cased wells. Action: Ward Staubitz for EPA (7/18/90, BP1.UMM)	<del>Open</del> : EPA will submit a letter to ACE summarizing the results of the December 12-13, 1990 logging meeting. Closed. Letter recieved from EPA 3/7/91
2BP1.42	Provide EPA and Ecology with the proposal for the work scope reduction. Action: Julie Erickson (10/16/90, BP1.UMM)	<del>Open</del> - Closed
2BP1.43	Provide to Doug Sherwood (EPA) a letter listing 1) delays in the field work and reasons for the delays, 2) hazards being analyzed for the safety documentation and the findings, and 3) new safety requirements imposed due to this analysis. Action: Mark Buckmaster (WHC) (1/24/91)	Open
2BP1.44	Further investigate the problems and laboratory limitations involved in performing physical analyses on radioactive soil samples, and possible ways to circumvent the problems. Specifically, moisture content and grain-size analysis are considered to be absolutely necessary. To Mark Buckmaster (WHC) 1/24/91	Closed The characterization of physical properties was presented at the February UMM (see Attachment #6) (2/21/91).

**UN-216-E-17 UNPLANNED RELEASE SITE**

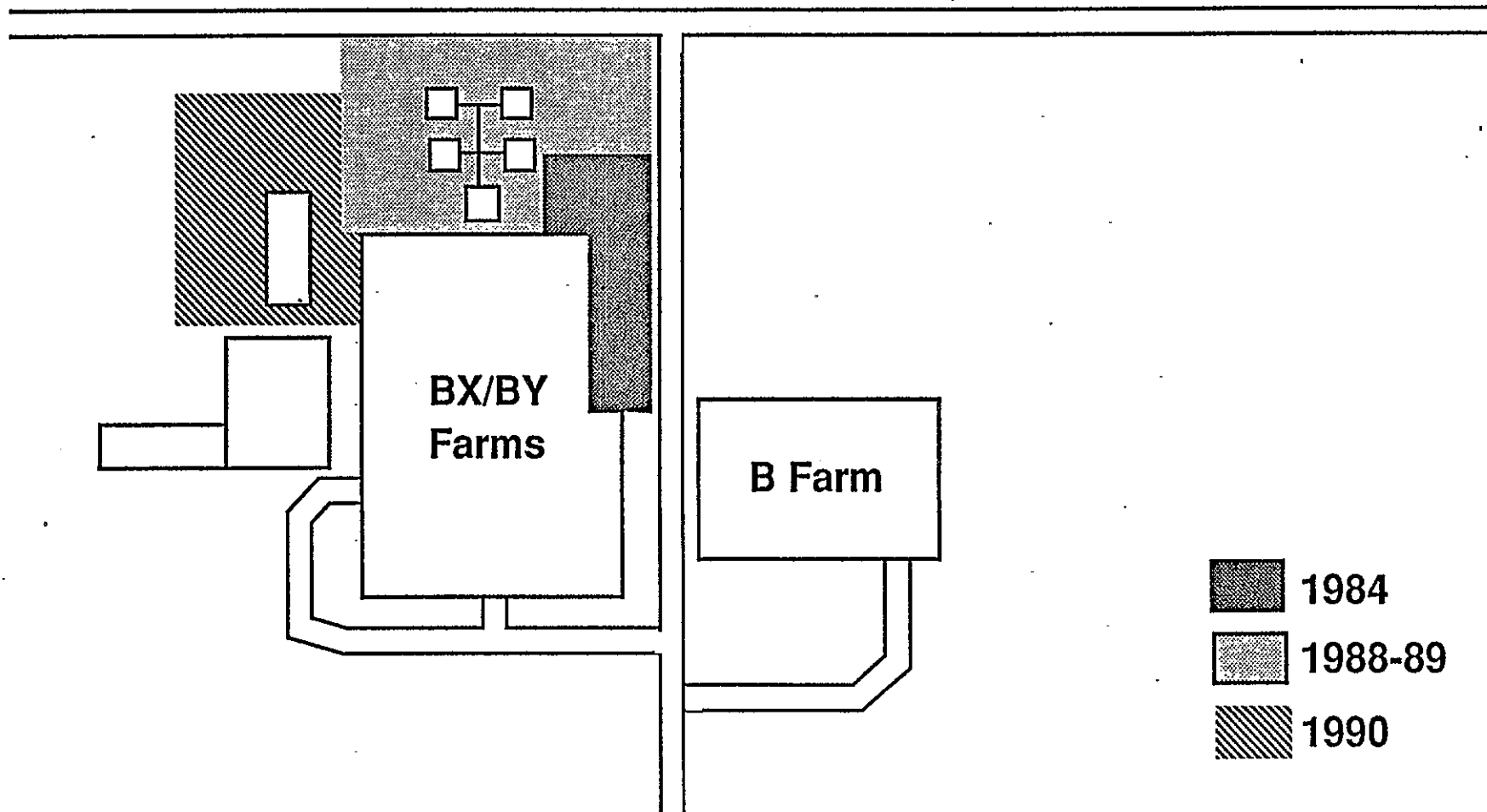
**RADIATION AREA REMEDIAL ACTION**



## **CURRENT STATUS**

- **Contamination has migrated.**
- **General contamination 400 counts/minute.**
- **Localized spots up to 10 mr/hr.**
- **Maintenance action needed.**
- **Part of Tiger Team Finding.**

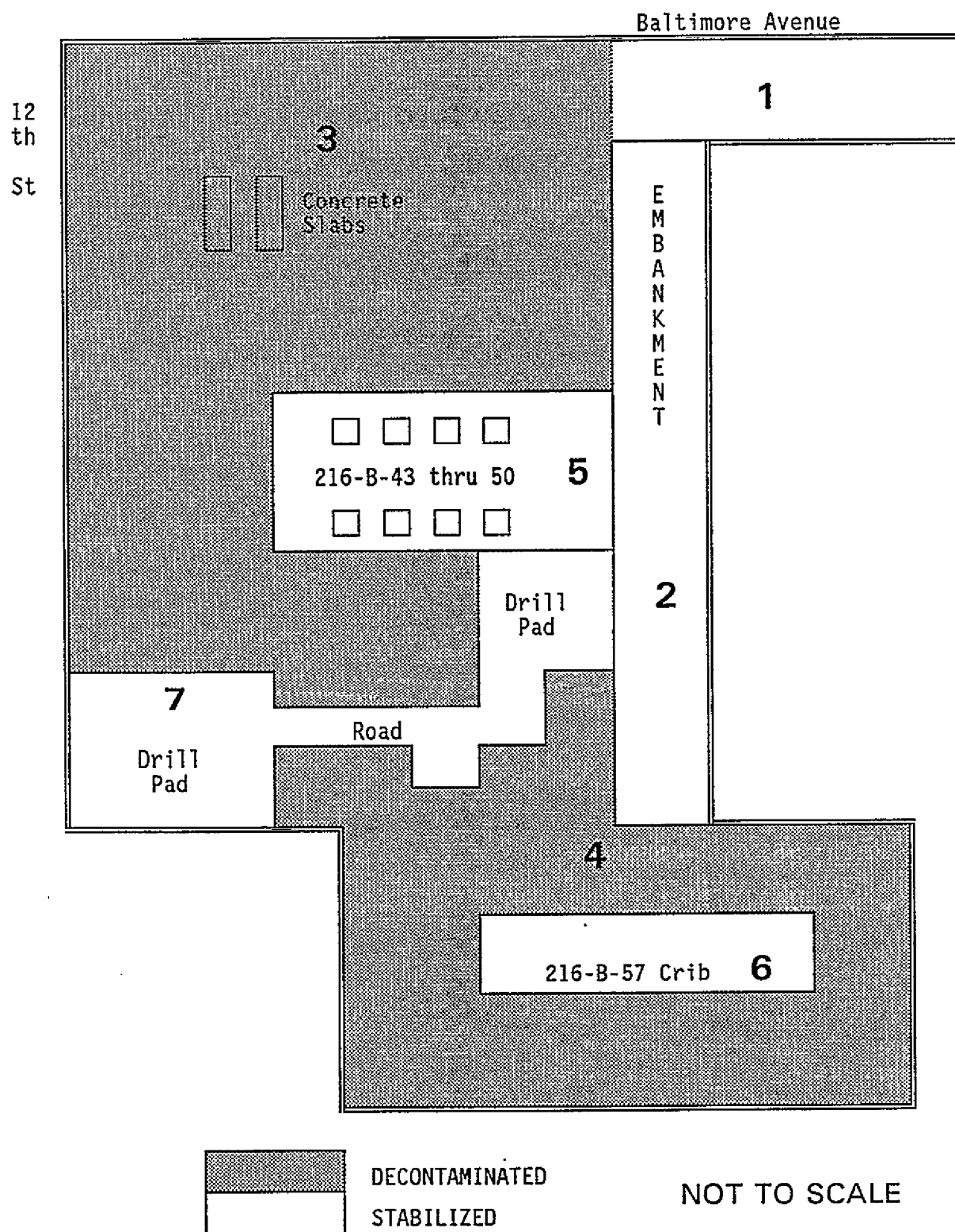
# Contamination Migration at UN-216-E-17 Unplanned Release Site



# **DECONTAMINATION AND INTERIM STABILIZATION**

- **Preparatory activities. Extend wells, isolate risers, as necessary.**
- **Remove contaminated surface soil; consolidate onto cribs.**
- **Stabilize with clean material.**
- **Stabilize east and north slopes (outside BP-1) with clean material.**

# INTERIM STABILIZATION ZONES



# **DECONTAMINATION AND STABILIZATION BY ZONE**

- |                          |  |
|--------------------------|--|
| <b>ZONE 1</b>            | <b>Stabilized in place with 1 to 2 ft of rock and soil (may revegetate).</b> |
| <b>ZONE 2</b>            | <b>Stabilized with one foot of large rock cobble (no revegetation).</b>      |
| <b>ZONES 3<br/>and 4</b> | <b>Decontaminated. Soil consolidated on cribs (revegetated).</b>             |
| <b>ZONES 5<br/>and 6</b> | <b>Stabilize with 2 ft of clean soil after consolidation (revegetate).</b>   |
| <b>ZONE 7</b>            | <b>Already stabilized. No further action planned.</b>                        |

# **ADVANTAGES/DISADVANTAGES**

## **ADVANTAGES**

- **Eliminates surface contamination and migration.**
- **Demonstrated success on 1000 acres.**
- **Minimizes area stabilized.**
- **Provides clean surface for RI/FS activities**
- **Will aid in identification of spills.**
- **Does not add or remove contaminated material.**
- **Does not interfere with RI/FS or RA activities.**

## **DISADVANTAGES**

- **Possible small % increase in final remediation cost.**

## **ALTERNATIVES CONSIDERED AND ELIMINATED**

- **Removal of contaminated soil and disposal at LLW burial ground.**
  - **Extraordinary disposal cost \$1.2 million/acre**
- **Fixative**
  - **Currently unable to demonstrate effectiveness of control**
  - **Not durable under expected surveillance/maintenance activities**
  - **Potential for significant impact on final remediation cost**
- **Shot-Crete/Treflan**
  - **Potential run-off disposal problems**
  - **Expensive, \$100K/acre**
  - **Potential for impact on final remediation cost**

# **SOURCE IDENTIFICATION AND CONTROL**

- **Suspected Sources**

- **Risers at base of hill.**
- **Loose contamination in BX/BY Tank Farm.**

- **Controls**

- **Risers isolated and stabilized with UN-216-E-17.**
- **Reduction/elimination loose contamination in Tank Farm.**
- **Increase frequency of Tank Farm perimeter survey.**



# IMPLEMENTATION

- **Notify Regulators.**
- **Secure commitment for Tank Farm source control.**
- **Identify windows in RI/FS sampling schedule.**
- **Prepare working documents.**
  - **Procedure**
  - **Work Package**
  - **Permits (i.e., Excavation Permit, RWP)**
- **Conduct operations.**
- **Document and record completed operations.**
- **Copies of documentation to RI coordinator.**

## 200-BP-1 PHYSICAL PROPERTIES FOR VADOSE SAMPLING ACTIVITIES

ANALYSIS	WHC-377 < 25 mR/hr	PNL-325 > 25 mR/hr
Moisture Content	YES  NOTE: Small sample size should allow analysis of all samples.	YES
Moisture Retention Curve	YES  NOTE: Small sample size should allow analysis of all samples.	NO
Particle Size Distribution	YES  NOTE: Large sample size may cause dose problem.	YES
Hydraulic Conductivity	YES  NOTE: Large sample size may cause dose problem.	NO  NOTE: It may be possible to use WHC equipment in PNL Hot Cell.

200-BP-1 GROUNDWATER WELL

INSTALLATION, TASK 6

STATUS, FEBRUARY 20, 1991

WELL

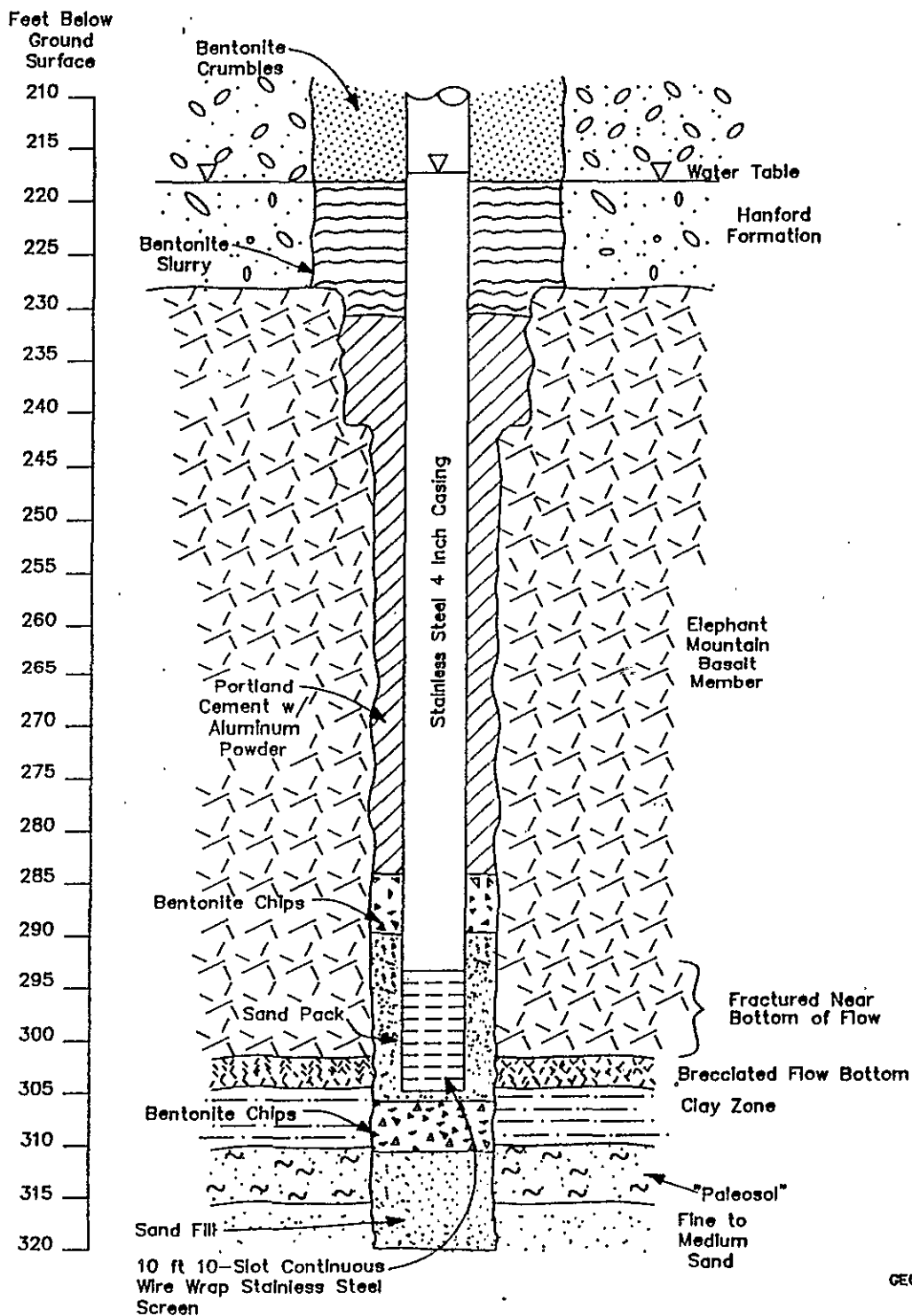
299-E33-40

STATUS

Completion Activities underway.

1  
0  
0  
1  
1  
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6  
9

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Idealized Completion of Well 299-E33-40

## GROUNDWATER WELL REMEDIATION

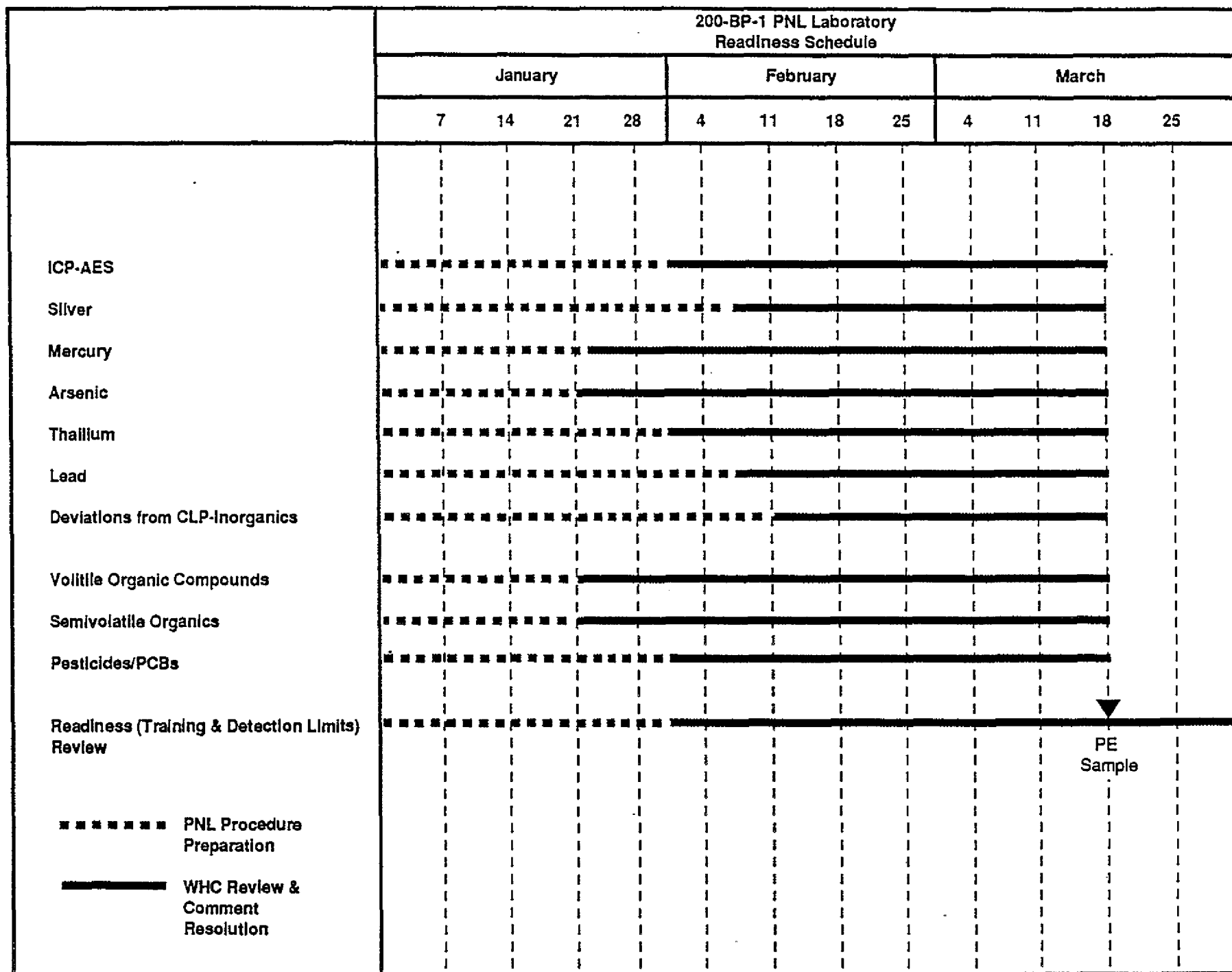
1. Delayed due to safety documentation.

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## 15

- 10  
9  
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1





REMOVED FROM MINUTES PER JULY 1-2 2/2, 1997

	200-BP-1 Vadose Sampling Hazard Assessment Schedule																															
	January				February				March				April				May				June											
	7	14	21	28	4	11	18	25	4	11	18	25	1	8	15	22	29	6	13	20	27	3	10	17	24							
Draft Scenarios	■																															
Analysis Complete									■																							
Draft Document									■																							
Comments Resolved & Incorporated																	■															
WHC Approval																	■															
DOE-RL Approval																					■											
Initiate Drilling Activities																					■								■			

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